County Public Health Officer's Update

Infant Mortality

Still a Need for Action

By GAYLE WHITE, MPH, RN

Note: For a copy of this article with references, email Editor@SDCMS.org.

In the United States, we do not often hear a lot about infant deaths except for the periodic news reports of the unfavorable ranking of our infant mortality rate compared to other countries. The latest estimates place the United States between 30th and 40th from the top. Infant mortality, the death of a live-born infant before one year of age, is a concern on several different levels. Clearly, for the individual family, almost no event is more tragic than the death of a baby. For the community, the death of an infant means the loss of many years of potential contributions to society. From a public health perspective, the infant mortality rate has long been considered one of the best barometers to measure the health and wellbeing of populations. Improving overall health and reducing the number of infant deaths are intertwined. The good news is that the infant mortality rate has been decreasing steadily for several decades. The national rate was 26 per 1,000 live births in 1960 and had fallen to 6.5 in 2005.

So what about infant mortality in San Diego County? The leading causes of infant deaths in San Diego are congenital anomalies (birth defects), prematurity and low birth weight, perinatal complications, and Sudden Infant Death Syndrome (SIDS), a pattern comparable to that seen nationwide. In 2005, 230 infants under age one died in San Diego County, an infant mortality rate of five deaths per 1,000 live births. By comparison, that same year there were 119 deaths among children between the ages of 1 and 17 in San Diego County, a death rate of 16.5 per 100,000. The fact that the two rates are calculated using a different denominator tends to mask the fact that a child is 30 times more likely to die during the first year of life than at any time during the next 17 years. The majority of infant deaths, about 50–55 percent, occur in the first week of life, and about two-thirds in the first 28 days. While injury prevention and good medical care during the first year of life are important considerations, focusing on these measures alone will not significantly impact the infant mortality rate.

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A major concern in the United Sates is that African Americans carry an unequal share of the infant mortality burden. In San Diego County in 2005, the African-American infant mortality rate was 13.2, more than two and a half times as high as the overall rate. A similar gap between African Americans and all other groups has persisted over time. One factor contributing to this inequality is a higher rate of premature births among African Americans, 16.3 percent in San Diego County in 2005 compared to 11.1

percent for all other groups. Despite significant advances in neonatal care, very low birth weight infants (under 1,500 grams) have a mortality rate of 251/1,000 births.

Nationally, research into the factors contributing to African-American infant mortality has found that while the rates for all racial and ethnic groups have been dropping, the difference between black infants and other groups has become even larger in the last 10 years. Studies controlling for many risk factors, including multiple births, prematurity, genetics, maternal education, and socioeconomic status, indicate that these factors do not fully explain the disparity for African Americans.

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One promising, yet challenging, focus that may help unravel the mysteries of the inequality in infant mortality is looking at the mother's health and experiences over the course of her life before and during the pregnancy. Part of the risk for African-American women may come from higher rates of certain chronic or infectious conditions. Women who come into a pregnancy with health problems, particularly if they have not had access to high quality healthcare to help address and control the conditions before the pregnancy, run a higher risk of an adverse birth outcome or infant death. In addition, some researchers point to stress on African-American women due to the undercurrent of racism that has affected their life course since childhood. The physiological pathway in response to stress can restrict blood flow to the uterus as well as contribute to inflammation, which can trigger premature birth. Racism as a chronic, long-term stressor is believed to have the potential to contribute to such responses. One recent study showed that women who believed that they had been treated unfairly on the basis of their race, for example, in employment, work, and other settings, had twice the risk of delivering a preterm infant than women who did not have the same perceptions.

The Maternal, Child, and Family Health Services branch (MCFHS) of Public Health Services works with community partners to reduce infant mortality and the inequality of African-American infant deaths. The Black Infant Health program provides an array of services to promote health and social support during pregnancy and the baby's first year of life for more than 500 clients each year. The Fetal and Infant Mortality Review (FIMR) program identifies gaps in the community system of care through in-depth review of infant and fetal death cases leading to recommendations to improve care. Focusing on African-American deaths since 2005, FIMR-initiated projects have included an innovative educational tool to inform African-American women of the importance of good health before and between pregnancies. The tool is currently being disseminated through community organizations. MCFHS received a grant from the March of Dimes to adapt the tool for Spanish-speaking and multicultural audiences during 2008. Other FIMR recommendations have led to projects raising awareness of the signs of premature labor and promoting a woman-carried portable prenatal record so that health information will be available in case of emergency.

For information about MCFHS programs working to reduce infant mortality in San Diego County, please call Gayle White, maternal and child health coordinator, at (619) 692-8667.

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SAN DIEGO COUNTY HEALTHCARE STATS

September is National Infant Mortality Awareness Month. For more information, please visit www.healthystartassoc.org.

- In 2005, 11.3 percent of babies born in Sand Diego County were at increased risk of death due to premature birth (before 37 completed weeks of gestation). Mothers under 19 and 35 and older had the highest rates of premature births, 12.5 percent and 13.5 percent respectively (1).
- More than one-half (55 percent) of all infant deaths in the United States in 2004 occurred to the 22 percent of infants born at fewer than 32 weeks of gestation. Infant mortality rates for late preterm (34–36 weeks of gestation) infants were three times those for term (37–41 week) infants (2).

To request additional health statistics describing health behaviors, diseases, and injuries for specific populations, health trends and comparisons to national targets, please call the County's Community Health Statistics Unit at (619) 285-6479. To access the latest data and data links, including the Regional Community Profiles document, go to www.sdhealthstatistics.com.

REFERENCES:

1. State of California, Department of Health Services, Center for Health Statistics, Birth Statistical Master Files. Prepared by County of San Diego, Health and Human Services Agency, Maternal, Child, and Family Health Services (MCFHS).

2. Mathews TJ, MacDorman MF. Infant mortality statistics from the 2004 period linked birth/infant death data set. National vital statistics reports; vol 55 no 14. Hyattsville, MD: National Center for Health Statistics. 2007.